

REMARKS

Claims 1, 18, and 19 have been amended to correct informalities contained therein. Upon entry of this amendment, claims 1-19 remain pending. Reconsideration and allowance of the all of the pending claims are respectfully requested.

In the Office Action dated August 23, 2005, claims 1-3, 15-17, and 19 were rejected under 35 U.S.C. §102(b) as being anticipated by Morita et al. (U.S. Patent No. 5,914,493). Applicants respectfully traverse this rejection.

Claim 1 recites an assembly arranged to communicate at least one utility to a component located in a vacuum chamber that includes, *inter alia*, a conduit constructed to communicate the at least one utility to the component, and a conduit shield substantially enclosing a space comprising the conduit and substantially separating the space from the vacuum chamber. The conduit shield is constructed and arranged to allow for movement of the component. A vacuum generator is provided and is coupled to the space and is constructed and arranged to provide a vacuum in the space comprising the conduit. Morita et al. clearly does not disclose or suggest all of the features of claim 1.

Morita et al. discloses a charged-particle-beam (CPB) exposure apparatus that includes an exposure-processing chamber (1), a load-lock chamber (3), and an atmospheric chamber (8). (Morita et al. at col. 4, lns. 28-32.) Gate valves (2, 5) are used to connect the exposure-processing chamber (1) from the load-lock chamber (3), and the load-lock chamber (3) from the atmospheric chamber (8), respectively. (Morita et al. at col. 4, lns. 32-36.) Temperature-controlled coolant is circulated through flow conduits (12) to keep the entire apparatus at a constant temperature. (Morita et al. at col. 4, lns. 44-47.) The load-lock chamber (3) includes a heating mechanism that includes a circulation conduit (10) through which a temperature controlled liquid or gas from a heater (14) is continually circulated to maintain the holder (11) at a constant temperature. (Morita et al. at col. 4, ln. 65 – col. 5, ln. 3; col. 5, lns. 28-32.) Hence, the only conduits that Morita et al. discloses are the conduits (12) on the outside of the chambers (1, 3) and the conduits in the holder (11) that is located in the load-lock chamber (3). Morita et al. does not disclose or suggest – at least - a conduit shield that substantially encloses a space comprising the conduit or a vacuum generator that is coupled to the space to provide a vacuum in the space comprising the conduit.

It is apparently the Examiner's position that the wafer (6) of Morita et al. is a utility and "the conduit is the region within the load-lock chamber (3)." (See Office Action at page 3.) Applicants respectfully submit that no one would consider a wafer to be a utility or the

region within the load-lock chamber (3) to be a conduit. As is clearly discussed in Applicants' specification at paragraph [0049], utilities, such as power, control signals, vacuum, gasses, measurement signals and further control signals are supplied by conduits such as, for example, hoses, pipes, electrical cables, etc., to an object table. Morita et al. expressly teaches the use of flow conduits (12) and circulation conduits (10). In view of the teachings of Morita et al., one of ordinary skill in the art would not consider the region within the vacuum chamber to be a conduit.

Moreover, as claimed in claim 1, the conduit shield substantially separates the space comprising the conduit from the vacuum chamber. It is the Examiner's position that the casing of the load-lock chamber (3) is the conduit shield because it separates the first and second (1, 3) vacuum chambers. This interpretation goes against the teachings of Morita et al., as Morita et al. teaches that the first gate valve (2) separates the two vacuum chambers, and when the vacuum level of the load-lock chamber (3) matches the exposure-processing chamber (1), the valve (2) is opened and the wafer (6) is transported to the wafer stage (9) in the exposure-processing chamber (1). (Morita et al. at col. 4, lns. 30-36, lns. 56-64.) Hence, the casing of the load-lock chamber (3) does not separate the first and second vacuum chambers and cannot be construed as a conduit shield. It is also the Examiner's position that "the gate valves (2, 5) teach on the claimed vacuum generator that is coupled to the space." Applicants respectfully submit that valves of Morita et al. do not generate vacuum.

Morita et al. simply does not disclose or suggest all of the features of claim 1. Claims 2, 3, 15, and 16 depend from claim 1 and include additional features of Applicants' invention. Accordingly, Applicants respectfully submit that claims 1-3, 15, and 16 are patentable over Morita et al. and respectfully request that the rejection to claims 1-3, 15, and 16 be withdrawn.

Claim 17 recites an assembly arranged to communicate a utility to a component located in a first vacuum space in a vacuum chamber that includes a conduit and a conduit shield separating the first vacuum from a second vacuum within which the conduit is disposed. Morita et al. is discussed above and does not disclose - at least - a conduit shield separating a first vacuum from a second vacuum within which the conduit is disposed. Morita et al. simply does not disclose or suggest all of the features of claim 17.

Accordingly, Applicants respectfully submit that claim 17 is patentable over Morita et al. and respectfully request that the rejection to claim 17 be withdrawn.

Claim 19 recites a method for providing a utility through a conduit to a component located in a vacuum chamber that includes providing a first vacuum to the vacuum chamber while shielding the first vacuum from the conduit with a conduit shield and providing a second vacuum in a space comprising the conduit and separated from the first vacuum by the conduit shield. Morita et al. is discussed above and does not disclose or suggest all of the features of claim 19. In particular, Morita et al. does not disclose or suggest – at least - providing a first vacuum to a vacuum chamber while shielding the first vacuum from a conduit with a conduit shield and providing a second vacuum in a space comprising the conduit.

Accordingly, Applicants respectfully submit that claim 19 is patentable over Morita et al. and respectfully request that the rejection to claim 19 be withdrawn.

In the Office Action, claims 4-14 and 18 were objected to as being dependent upon a rejected base claim. Applicants acknowledge with appreciation the indication that claims 4-14 and 18 would be allowable if rewritten in independent form. However, in view of the above remarks, Applicants respectfully submit that all of claims are allowable.

All rejections and objections having been addressed, it is respectfully submitted that the present application is in a condition for allowance and a Notice to that effect is earnestly solicited. If any point remains at issue which the Examiner feels may best be resolved through a personal or telephone interview, please contact the undersigned at the telephone number below.

Please charge any fees associated with the submission of this paper to Deposit Account Number 033975. The Commissioner for Patents is also authorized to credit any over payments to the above-referenced Deposit Account.

Respectfully submitted,

PILLSBURY WINTHROP SHAW PITTMAN LLP



EMILY T. BELL  
Reg. No. 47,418  
Tel. No. 703.905.2261  
Fax No. 703.905.2500

Date: October 19, 2005  
P.O. Box 10500  
McLean, VA 22102  
(703) 905-2000